

TERRY MUNSON hereby declares under penalty of perjury, as follows:

(1) My name is Terry Munson. I am president and founder of Foresight Failure Analysis Inc., Kokomo, Indiana. I make this declaration in support of patentability of the subject United States Patent Application of Mr. Max Friedheim. I have more than 20 years of experience in the field of prediction of and elimination of failure of particular systems and parts, and specifically, failure due to surface conditions of such systems and parts. I have been employed in the medical field in the United States Air Force and in the private sector on the above stated subject matter as well as a television news commentator in that field.

(2) One of the important activities of my company involves applied surface analysis used in connection with electronic equipment; another important activity of my company is the use of applied surface analysis in connection with pharmaceutical/biological products.

(3) My company's activities involve the diagnosis of and prediction of failures due to surface conditions as well as providing means and procedures for eliminating such sources of failure. Among the particular projects with which my company is involved are diagnosing and eliminating causes of failure in circuitboards and electronic hardware; plastic housing, special implants (such as titanium devices), and small, soldered areas. I am the inventor on U.S. Pat. No. 5,783,938 which is a standard in my field.

(4) My company has been a customer for the superheated vapor cleaning equipment manufactured and sold by Mr. Max Friedheim, for a number of years. We have used the equipment to clean conventional electronic equipment.

(5) Recently, we have been engaged in the activity of cleaning to a 100% level of cleanliness one quarter inch (1/4") to four-inch (4") long ASTM medical implants. Using my techniques for detecting impurities/soil on surfaces such as those of medical implants referred to above as well as electronic parts, we are able to locate the sources of actual and potential failure.

(6) Once we have located the impurities/dirt and the like, it is our task to eliminate these. For this purpose, Max Friedheim's device which is the subject matter of the instant patent application, has proved invaluable. Particularly important is the ability of the operator to control precisely the amount

of superheated steam, its velocity, pressure, duration of burst, and direction afforded by Mr. Friedheim's product sold under the name Model 6609 with control on the input side.

(7) By the aforesaid precise control of the superheated vapor from Mr. Friedheim's apparatus, superheated vapor—on occasion containing cleaning material—optimal cleansing can be achieved without risk of damage to the object being cleaned.

(8) It has recently been found that solder—now required not to contain lead—and required to be employed with flux also required to be substantially lead-free tends to fail because of the presence of dirt and even “metal whiskers” (discussed in further detail below) which were previously prevented by the presence of lead in solder. Treatment with my detection system and with Mr Friedheim's cleaning system may reduce such failure substantially.

(9) Another application of my detection technology and Mr. Friedheim's cleaning technology is in the field of eyeglasses, including frames and lenses. It is clear that such devices must be required to have a very high standard of hygiene, and the combination of technologies allows that to be accomplished. With the control capability of Mr. Friedheim's apparatus, bursts of cleansing solution can be precisely timed to be in the region of 30 seconds-90 seconds as well as affording the capability of controlling the timing between bursts. With Mr. Friedheim's multi-chamber apparatus an essentially continuous emanation of superheated steam can be accomplished.

(10) Another extremely important application of the combination of my detection technology and Mr. Friedheim's cleansing technology is in connection with elimination of a presently little-understood but worrisome phenomenon that becomes most pronounced in, among others, near vacuum/low gravity situations namely that phenomenon known as “metal whiskers.” Under conditions that exist for example, in the space shuttle, it has been observed that needle like and/or hair-like emanations resembling “whiskers” have appeared extending out of metal parts. Thus far, to my knowledge, no definitive explanation for this phenomenon has been published. One theory for the explanation of the metal whiskers phenomenon involves dirt/impurities on the part/component from which the metal whiskers emanate. Accordingly, my company is employing its detection technology to ascertain the presence of such dirt/impurities and if such are detected, we will employ the Friedheim technology to clear the dirt/impurities. This is an important enterprise because of the damage that metal whiskers can cause, and have caused. They tend to cause short circuits in

electrical equipment; they also act as miniature antennas affecting circuit impedance and causing reflections. In computer disk drives they can break off and cause head crashes or bearing failures. Zinc whiskers have caused failures of pacemakers and other devices. It is believed that tin whiskers caused the failure of the Galaxy IV satellite in 1998.

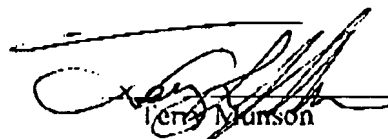
(11) A further extremely important application of my technology and that of Mr. Friedheim is for cannulas used in the medical field. Cannulas present problems when they are pulled out in that a gripping device/claw must be used. Of course cannulas are sterilized prior to use and after use and in preparation for the next use. Even so, residual foreign substances may, and do, remain on the cannulas and are often responsible for failure of medical procedures and apparatus such as hip replacements. Using my detection technology and the Friedheim cleansing technology, cannulas can be, and are efficiently and thoroughly cleaned and sterilized.

(12) The great benefit of the use of the Friedheim cleansing technology is that in real time as dirt/impurities are detected, they can be eliminated through the application of a superheated cleansing vapor under precise control of the operator, as opposed to the requirement of detection and later dipping and/or steaming and/or washing the dirt/impurities.

(13) Having been in the field of detection and elimination of dirt/impurities on surfaces as a component of error prediction and analysis, it is my firm conviction that the Friedheim cleansing technology as embodied in the instant patent application fills a long-felt but unfulfilled need in this field and has no competition either in the patent literature or in the marketplace in terms of effectiveness and ease of use.

I hereby declare under penalty of perjury of the laws of the State of Indiana, that the foregoing is true and correct.

Executed this 28 day of July, 2007 at Kokomo, Indiana.



Terry Munson